

Koch, Kristine

From: Shephard, Burt
Sent: Thursday, November 06, 2014 7:23 PM
To: Allen, Elizabeth
Cc: Koch, Kristine; Jennifer Peterson
Subject: Comparison of current Portland Harbor FWM internal default parameter values to original Arnot and Gobas (2004) defaults
Attachments: Gobas default values for 21 FWM parameters.xlsx; Gobas vs LWG default values for FWM parameters comparison.docx

Elizabeth,

After our discussion earlier this afternoon, I went in and generated the attached spreadsheet table and explanatory text comparing the values of the 21 internal Gobas model default parameters about which the EPA team FWM comments expressed concern. Our concern was the LWG basis for changing Gobas model default values of parameters that had no site- or species-specific data. We were uncomfortable about LWG changing default values for which the Gobas team had evaluated and derived parameter values, but which LWG changed for no other apparent reason than they could allow the 21 parameters to vary in a Monte Carlo evaluation of FWM sensitivity.

The comparison in the attached table indicates that 19 of the 21 parameters we expressed concern about, and which are in the FWM spreadsheet you sent me on November 4th have now been set back to the Gobas model default values. The two exceptions, highlighted in red in the attached table, are the zooplankton dietary absorption efficiencies for lipids and non-lipid organic matter. All of the remaining internal values in the spreadsheet you sent me earlier this week are now at the Gobas model defaults, not at the calibrated values shown in the Round 2 Report, Appendix E iteration of the FWM.

Comparison of most of the remaining model parameters used by the LWG to Gobas default values has little or no utility. This is because they are the chemical-, site- or species-specific model inputs, without which we would be modeling Burrard Inlet, British Columbia (a source for many of the default values in the model spreadsheet downloaded from the Gobas website at Simon Fraser University), not Portland Harbor.

I think the attached should address most if not all of the questions raised about FWM parameter values last week in Portland.

Best regards,

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"Facts are stubborn things"
- John Adams